Polynomial Factoring practice (version 19)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 8x + 36 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of 6+7i and 5+4i in standard form (a+bi).

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3. Write function $f(x) = x^3 + 2x^2 - 23x - 60$ in factored form. I'll give you a hint: one factor is (x-5).

4. Polynomial p is defined below in factored form.

$$p(x) = (x+2)^{2} \cdot (x-1) \cdot (x-4)^{2} \cdot (x-7)$$

Sketch a graph of polynomial y = p(x).

